AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A process for producing a modified polymer, comprising a first and second modification process,

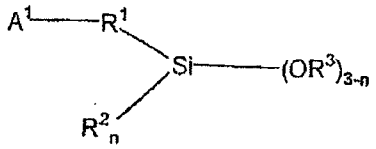
the first modification process comprising modifying a polymer produced by anionic polymerization using an alkaline metal compound and/or an alkaline earth metal compound as a polymerization initiator and having an active site of an organometal in a molecule by reacting the site thereof with a hydrocarbyloxysilane compound, and

the second modification process comprising adding a condensation accelerator to the reaction system in the middle of the above reaction, or adding a condensation accelerator to the reaction system in the middle of the above reaction and after the completion thereof,

the condensation accelerator accelerates condensation of the modified polymer resulting in a condensed polymer,

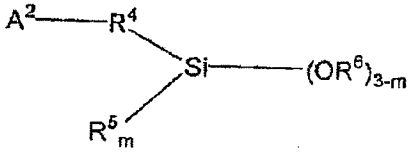
the condensed polymer being recovered from the system,

where in the polymer described above is a polymer obtained by homopolymerizing a conjugated diene compound or copolymerizing a conjugated diene compound with at least one additional monomer, and the hydrocarbyloxysilane compound described above used for the modification is at least one selected from a hydrocarbyloxysilane compound represented by Formula (I) and/or a partial condensation product thereof;



. . . (I)

(wherein A^1 represents a monovalent group having at least one functional group selected from (thio)epoxy, (thio)isocyanate, (thio)ketone, (thio)aldehyde, imine, amide, trihydrocarbyl isocyanurate, (thio)carboxylates, metal salts of (thio)carboxylates, carboxylic anhydrides, carboxylic halides and dihydrocarbyl carbonate; R^1 represents a single bond or a divalent inactive hydrocarbon group; R^2 and R^3 each represent independently a monovalent aliphatic hydrocarbon group having 1 to 20 carbon atoms or a monovalent aromatic hydrocarbon group having 6 to 18 carbon atoms; n is an integer of 0 to 2, and when a plurality of OR^3 is present, a plurality OR^3 may be the same as or different from each other; and an active proton and an onium salt are not contained in the molecule), and a hydrocarbyloxysilane compound represented by Formula (II) and/or a partial condensation product thereof;



. . . (II)

(wherein A^2 represents a monovalent group having at least on functional group selected from cyclic tertiary amine, non-cyclic tertiary amine, nitrile, pyridine, sulfide and multisulfide; R^4 represents a single bond or a divalent inactive hydrocarbon group; R^5 and R^6 each represent independently a monovalent aliphatic hydrocarbon group having 1 to 20 carbon atoms or a monovalent aromatic hydrocarbon group having 6 to 18 carbon atoms; m is an integer of 0 to 2, and when a plurality of OR^6 is present, a plurality OR^6 may be the same as or different from each other; and an active proton and an onium salt are not contained in the molecule).

Claim 2 (canceled).

3. (currently amended): The process for producing a modified polymer as described in claim 1, wherein the metal in the active site ~~described above~~ is at least one selected from alkaline metals and alkaline earth metals.

4. (previously presented): The process for producing a modified polymer as described in claim 1, wherein the at least one additional monomer is an aromatic vinyl compound.

5. (currently amended): The process for producing a modified polymer as described in claim 4, wherein the active site ~~described above~~ is present at an end of the polymer, and at least a part thereof stays in an active state.

Claim 6 (canceled).

7. (currently amended): The process for producing a modified polymer as described in claim 1, wherein the hydrocarbyloxysilane compound for modification is added to the polymer having an active site of an organometal in a molecule in a stoichiometric amount or an excess amount thereover based on the ~~above~~ active site to react the ~~above~~ active site with the hydrocarbyloxysilane compound.

8. (currently amended): The process for producing a modified polymer as described in claim 1, wherein the condensation accelerator ~~described above~~ comprises combination of carboxylic acid salt of tin and/or titanium alkoxide with water.

9. (currently amended): The process for producing a modified polymer as described in claim 8, wherein the carboxylic acid salt of tin ~~described above~~ is a tin compound having an oxidation number of 2 represented by the following Formula (IV):

$$Sn(OCOR^9)_2 \qquad (IV)$$

(wherein R^9 is an alkyl group having 2 to 19 carbon atoms) or a tin compound having an oxidation number of 4 represented by the following Formula (V):

$$R^{10}{}_xSnA^3{}_yB^1{}_{4-y-x} \qquad (V)$$

(wherein R^{10} is an aliphatic hydrocarbon group having 1 to 30 carbon atoms; x is an integer of 1 to 3; y is 1 or 2; A^3 is a group selected from a carboxyl group having 2 to 30 carbon atoms, an α,γ-dionyl group having 5 to 20 carbon atoms, a hydrocarbyloxy group having 3 to 20 carbon atoms and a siloxy group tri-substituted with a hydrocarbyl group having 1 to 20 carbon atoms and/or a hydrocarbyloxy group having 1 to 20 carbon atoms; and B^1 is a hydroxyl group or halogen), and the titanium alkoxide ~~described above~~ is a titanium compound by the following Formula (VI):

$$A^4{}_zTiB^2{}_{4-z} \qquad (VI)$$

(wherein A^4 is a group selected from an alkoxy group having 3 to 20 carbon atoms and a siloxy group tri-substituted with an alkyl group having 1 to 20 carbon atoms and/or an alkoxy group having 1 to 20 carbon atoms; B^2 is an α,γ-dionyl group having 5 to 20 carbon atoms; and z is 2 or 4).

10. (currently amended): The process for producing a modified polymer as described in claim 1, wherein the conjugated diene compound ~~described above~~ is 1,3-butadiene or isoprene.

11. (currently amended): The process for producing a modified polymer as described in claim 4, wherein the aromatic vinyl compound ~~described above~~ is styrene.

12. (previously presented): A modified polymer obtained by the production process as described in claim 1, where the modified polymer is condensed at a modified moiety of said polymer.

13. (currently amended): The modified polymer as described in claim 12, having a Mooney viscosity (ML_{1+4}/100°C) of 10 to 150.

14. (original): A rubber composition comprising the modified polymer as described in claim 12 or 13.

Claims 15-18 (canceled).

19. (currently amended): The rubber composition as described in claim 14, comprising 100 parts by weight of (A) a rubber component containing at least 15 % by weight of the modified polymer ~~described above~~ and 10 to 100 parts by weight of (B) an inorganic filler and/or carbon black.

20. (currently amended): The rubber composition as described in claim 19, comprising 10 to 100 parts by weight of silica as the inorganic filler ~~described above~~.

21. (previously presented): A tire using the rubber composition as described in claim 14.

22. (previously presented): The process for producing a modified polymer as described in claim 1, wherein the anionic polymerization is conducted in the presence of a randomizer.

23. (previously presented): The process for producing a modified polymer as described in claim 8, wherein the carboxylic acid salt of tin is tin bis(2-ethylhexanoate) and the titanium alkoxide is titanium tetrakis(2-ethylhexyl oxide).

24. (previously presented): The modified polymer as described in claim 12, having a weight average molecular weight (Mw) of 55.4×10^4 to 62.3×10^4.

Claims 25 to 35 (canceled).

36. (new): A process for producing a modified polymer, comprising a first and second modification process,

the first modification process comprising modifying a polymer produced by anionic polymerization using an alkaline metal compound and/or an alkaline earth metal compound as a

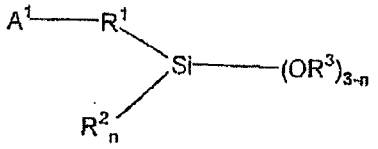
polymerization initiator and having an active site of an organometal in a molecule by reacting the site thereof with a hydrocarbyloxysilane compound, and

the second modification process comprising adding a condensation accelerator to the reaction system after the completion thereof,

the condensation accelerator accelerates condensation of the modified polymer resulting in a condensed polymer,

the condensed polymer being recovered from the system,

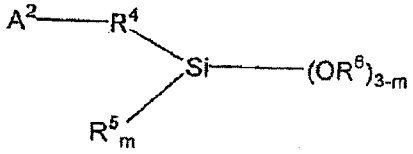
where in the polymer described above is a polymer obtained by homopolymerizing a conjugated diene compound or copolymerizing a conjugated diene compound with at least one additional monomer, and the hydrocarbyloxysilane compound described above used for the modification is at least one selected from a hydrocarbyloxysilane compound represented by Formula (I) and/or a partial condensation product thereof;



. . . (I)

(wherein A^1 represents a monovalent group having at least one functional group selected from (thio)epoxy, (thio)isocyanate, (thio)ketone, (thio)aldehyde, imine, amide, trihydrocarbyl isocyanurate, (thio)carboxylates, metal salts of (thio)carboxylates, carboxylic anhydrides, carboxylic halides and dihydrocarbyl carbonate; R^1 represents a single bond or a divalent inactive hydrocarbon group; R^2 and R^3 each represent independently a monovalent aliphatic hydrocarbon group having 1 to 20 carbon atoms or a monovalent aromatic hydrocarbon group having 6 to 18 carbon atoms; n is an integer of 0 to 2, and when a plurality of OR^3 is present, a plurality OR^3 may be the same as or different from each other; and an active proton and an

onium salt are not contained in the molecule), and a hydrocarbyloxysilane compound represented by Formula (II) and/or a partial condensation product thereof;



$$\cdots \text{(II)}$$

(wherein A^2 represents a monovalent group having at least on functional group selected from cyclic tertiary amine, non-cyclic tertiary amine, nitrile, pyridine, sulfide and multisulfide; R^4 represents a single bond or a divalent inactive hydrocarbon group; R^5 and R^6 each represent independently a monovalent aliphatic hydrocarbon group having 1 to 20 carbon atoms or a monovalent aromatic hydrocarbon group having 6 to 18 carbon atoms; m is an integer of 0 to 2, and when a plurality of OR^6 is present, a plurality OR^6 may be the same as or different from each other; and an active proton and an onium salt are not contained in the molecule).

37. (new): The process for producing a modified polymer as described in claim 36, wherein the metal in the active site is at least one selected from alkaline metals and alkaline earth metals.

38. (new): The process for producing a modified polymer as described in claim 36, wherein the at least one additional monomer is an aromatic vinyl compound.

39. (new): The process for producing a modified polymer as described in claim 38, wherein the active site is present at an end of the polymer, and at least a part thereof stays in an active state.

40. (new): The process for producing a modified polymer as described in claim 36, wherein the hydrocarbyloxysilane compound for modification is added to the polymer having an active site of an organometal in a molecule in a stoichiometric amount or an excess amount thereover based on the active site to react the active site with the hydrocarbyloxysilane compound.

41. (new): The process for producing a modified polymer as described in claim 36, wherein the condensation accelerator comprises combination of carboxylic acid salt of tin and/or titanium alkoxide with water.

42. (new): The process for producing a modified polymer as described in claim 41, wherein the carboxylic acid salt of tin is a tin compound having an oxidation number of 2 represented by the following Formula (IV):

$$Sn(OCOR^9)_2 \qquad (IV)$$

(wherein R^9 is an alkyl group having 2 to 19 carbon atoms) or a tin compound having an oxidation number of 4 represented by the following Formula (V):

$$R^{10}{}_xSnA^3{}_yB^1{}_{4-y-x} \qquad (V)$$

(wherein R^{10} is an aliphatic hydrocarbon group having 1 to 30 carbon atoms; x is an integer of 1 to 3; y is 1 or 2; A^3 is a group selected from a carboxyl group having 2 to 30 carbon atoms, an α,γ-dionyl group having 5 to 20 carbon atoms, a hydrocarbyloxy group having 3 to 20 carbon atoms and a siloxy group tri-substituted with a hydrocarbyl group having 1 to 20 carbon

atoms and/or a hydrocarbyloxy group having 1 to 20 carbon atoms; and B^1 is a hydroxyl group or halogen), and the titanium alkoxide is a titanium compound by the following Formula (VI):

$$A^4_zTiB^2_{4-z} \qquad (VI)$$

(wherein A^4 is a group selected from an alkoxy group having 3 to 20 carbon atoms and a siloxy group tri-substituted with an alkyl group having 1 to 20 carbon atoms and/or an alkoxy group having 1 to 20 carbon atoms; B^2 is an α,γ-dionyl group having 5 to 20 carbon atoms; and z is 2 or 4).

43. (new): The process for producing a modified polymer as described in claim 36, wherein the conjugated diene compound is 1,3-butadiene or isoprene.

44. (new): The process for producing a modified polymer as described in claim 38, wherein the aromatic vinyl compound is styrene.

45. (new): A modified polymer obtained by the production process as described in claim 36, where the modified polymer is condensed at a modified moiety of said polymer.

46. (new): The modified polymer as described in claim 45, having a Mooney viscosity (ML_{1+4}/100°C) of 10 to 150.

47. (new): A rubber composition comprising the modified polymer as described in claim 45 or 46.

48. (new): The rubber composition as described in claim 47, comprising 100 parts by weight of (A) a rubber component containing at least 15 % by weight of the modified polymer and 10 to 100 parts by weight of (B) an inorganic filler and/or carbon black.

49. (new): The rubber composition as described in claim 48, comprising 10 to 100 parts by weight of silica as the inorganic filler.

50. (new): A tire using the rubber composition as described in claim 47.

51. (new): The process for producing a modified polymer as described in claim 36, wherein the anionic polymerization is conducted in the presence of a randomizer.

52. (new): The process for producing a modified polymer as described in claim 41, wherein the carboxylic acid salt of tin is tin bis(2-ethylhexanoate) and the titanium alkoxide is titanium tetrakis(2-ethylhexyl oxide).

53. (new): The modified polymer as described in claim 45, having a weight average molecular weight (Mw) of 55.4×10^4 to 62.3×10^4.